

Claims

[c1] An apparatus comprising:
a serial port configured to interface with a separate host;
one serial interface engine (SIE) connected to the serial port;
at least a first interface unit and a second interface unit connected to the serial interface engine.

[c2] The apparatus of claim 1, wherein the first interface unit is a keyboard interface.

[c3] The apparatus of claim 2, wherein the second interface unit is a flash media drive interface.

[c4] The apparatus of claim 1, further includes a virtual hub comprising a firmware unit configured to emulate a hub having multiple ports.

[c5] The apparatus of claim 1, wherein the apparatus is housed within a keyboard.

[c6] The apparatus of claim 5, wherein the apparatus is a Universal Serial Bus (USB) peripheral and the serial port is a Universal Serial Bus port.

[c7] The apparatus of claim 1, wherein the serial interface engine is connected to a controller, and the first interface unit and the second interface unit are connected to the controller.

[c8] The apparatus of claim 1, wherein a third interface unit is connected to the serial interface unit.

[c9] The apparatus of claim 1, wherein the serial port, the serial interface engine (SIE), and the first interface unit and a second interface unit are integrated on a single device.

[c10] The apparatus of claim 1, wherein a third interface is connected to the serial port, the third interface having a second serial interface engine.

[c11] A keyboard comprising:
a Universal Serial bus (USB) port configured to interface with a separate host;
one serial interface engine (SIE) connected to the USB port;

at least a first interface unit and a second interface unit connected to the serial interface engine; and
a virtual hub comprising a firmware unit configured to emulate a hub having multiple ports.

[c12] The keyboard of claim 11, wherein the first interface unit is a keyboard interface.

[c13] The keyboard of claim 11, wherein the second interface unit is a flash media drive interface.

[c14] The keyboard of claim 11, wherein the serial interface engine is connected to a controller, and the first interface unit and the second interface unit are connected to the controller.

[c15] The keyboard of claim 11, wherein a third interface unit is connected to the serial interface unit.

[c16] The keyboard of claim 11, wherein the USB port, the serial interface engine (SIE), and the first interface unit and a second interface unit are integrated on a single device.

[c17] The keyboard of claim 1, wherein a third interface is connected to the USB port, the third interface having a second serial interface engine.

[c18] A method of emulating a hub having multiple ports, the method comprising:
Transmitting data with a separate host;
Transmitting data between one Serial interface engine (SIE) and a first interface;
and
Transmitting data between the one serial interface engine and a second interface.

[c19] The method of claim 18, wherein the first interface unit is a keyboard interface.

[c20] The method of claim 18, wherein the second interface unit is a flash media drive interface.

[c21] The method of claim 18, wherein the one serial interface engine, the first

interface, and the second interface is housed within a keyboard.

[c22] The method of claim 22, wherein the method is performed by a Universal Serial Bus (USB) peripheral.

[c23] The method of claim 18, wherein the serial interface engine is connected to a controller, and the first interface unit and the second interface unit are connected to the controller.

[c24] The method of claim 18, wherein the method further comprises transmitting data between the serial interface unit and a third interface unit.

[c25] The method of claim 18, wherein the serial interface engine (SIE), the first interface unit, and the second interface unit are integrated on a single device.

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